ELSEVIER

Mutation Research 316 (1996) 289–290

MR
DNAging
Genetic Instability and Aging

Contents to Volume 316 (1996)

Research Papers

The frequency of micronuclei with X chromosome increases with age in human females
F. Richard, M. Muleris and B. Dutrillaux (France) 1

Protonation of the imidazole ring prevents the modulation by histidine of oxidative DNA degradation
S. Ouzou, A. Deflandre and P.U. Giacomoni (France) 9

Age-dependent somatic excision of transposable element Tc1 in *Caenorhabditis elegans*
N.K. Egilmez and R.J. Shmookler Reis (USA) 17

Cloning of cDNAs with possible association with senescence and immortalization of human cells
Y. Satoh, M. Kashimura, S. Kaneko, Y. Karasaki, K. Higashi and S. Gotoh (Japan) 25

Correlation between senescence and DNA repair in cells from young and old individuals and in premature aging syndromes
H. Weirich-Schwaiger, H.G. Weirich, B. Gruber, M. Schweiger and M. Hirsch-Kauffmann (Austria, Germany) 37

Aneuploidy in somatic cells of in utero exposed A-bomb survivors in Hiroshima
K. Ohtaki, R. Sposto, Y. Kodama, M. Nakano and A.A. Awa (Japan) 49

An age-related increase in the basal level of DNA damage and DNA vulnerability to oxygen radicals in the individual hepatocytes of male F344 rats
Y. Higami, I. Shimokawa, T. Okimoto and T. Ikeda (Japan) 59

Detection and quantitation by competitive PCR of an age-associated increase in a 4.8-kb deletion in rat mitochondrial DNA
W. Edris, B. Burgett, O.C. Stine and C.R. Filburn (USA) 69

An investigation of mutation as a function of age in humans
C.M. King, E.S. Gillespie, P.G. McKenna and Y.A. Barnett (UK) 79

Effect of diet and vitamin C on DNA strand breakage in freshly-isolated human white blood cells
M.H.L. Green, J.E. Lowe, A.P.W. Waugh, K.E. Aldridge, J. Cole and C.F. Arlett (United Kingdom) 91

Review

Low levels of reactive oxygen species as modulators of cell function
J. Remacle, M. Raes, O. Toussaint, P. Renard and G. Rao (Belgium, USA) 103

Research Papers

Restriction, methylation and ligation of 5-hydroxymethyluracil-containing DNA
J.A. Vilpo and L.M. Vilpo (Finland) 123

Reduction of unscheduled DNA synthesis and plasminogen activator activity in Hutchinson-Gilford fibroblasts during passaging in vitro: partial correction by interferon-β
K. Sugita, N. Suzuki, K. Fujii and H. Niimi (Japan) 133

N-nitrosomethylurea-induced carcinogenesis in the progeny of male rats of different ages
V.N. Anisimov and O.E. Gvardina (Russia) 139

Age-related variation in sister chromatid exchanges and cell cycle kinetics in peripheral blood lymphocytes of healthy individuals
B.B. Ganguly (India) 147

Changes of the methylation pattern of the c-*myc* gene during in vitro aging of IMR90 human embryonic fibroblasts
J.-P. Halle, C. Schmidt and G. Adam (Germany) 157

Effect of aging and interval between primary and secondary treatment in carcinogenesis induced by neonatal exposure to 5-bromodeoxyuridine and subsequent administration of *N*-nitrosomethylurea in rats
V.N. Anisimov (Russia) 173

Publisher's note 189

Editorial 191

Research Papers

Telomere length does not change during senescence of the ascomycete *Podospora anserina*
T. Schwartz and H.D. Osiewacz (Germany) 193

Correlation between age and DNA damage detected by FADU in human peripheral blood lymphocytes
M.C. Chicca, C. Nesti, M. Muzzoli, P. Pasetti and S. Pinamonti (Italy) 201

A network theory of ageing: the interactions of defective mitochondria, aberrant proteins, free radicals and scavengers in the ageing process
A. Kowald and T.B.L. Kirkwood (UK) 209

An accessory protein enhances both DNA binding and activity of DNA polymerase α isolated from normal, but not transformed, human fibroblasts
M. Schroeder, S. Miller, V. Srivastava, E. Merriam-Crouch, S. Holt, V. Wilson and D. Busbee (USA) 237

Differences in the spectrum of spontaneous mutations in the *hprt* gene between tumor cells of the microsatellite mutator phenotype
S. Malkhosyan, A. McCarty, H. Sawai and M. Perucho (USA) 249

Spermatid micronucleus analysis of aging effects in hamsters
J.W. Allen, B.W. Collins and R.W. Setzer (USA) 261

Differential expression of DNA polymerase α in normal and transformed human fibroblasts
V.K. Srivastava, M.D. Schroeder, S.D. Miller and D.L. Busbee (USA) 267

Non-linear accumulation of 8-hydroxy-2′-deoxyguanosine, a marker of oxidized DNA damage, during aging
T. Kaneko, S. Tahara and M. Matsuo (Japan) 277

Corrigendum

Effect of aging on spontaneous micronucleus frequencies in peripheral blood of nine mouse strains: the results of the 7th collaborative study organized by CSGMT/JEMS · MMS. Mutation Res. 338 (1995) 51–57
S.-i. Sato, M. Taketomi, M.N.M. Kitazawa, H. Shimada, S. Itoh, M. Igarashi, N. Higashikuni, S. Sutou, Y.F. Sasaki, M. Hayashi, T. Sofuni, T. Higashiguchi, S. Nito, Y. Kondo, S. Honda, M. Hayashi, Y. Shinagawa, E. Nakajima, Y. Oka, K. Shimoi, Y. Hokabe, A. Morita, N. Kinae, M. Takeuchi, H. Hirono, E. Yamamura and K. Tamai (Japan) 287

Contents, Vol. 316 289